

## **MONTANA FISH, WILDLIFE & PARKS INTERIM PROJECT PERFORMANCE REPORT**

**STATE:** MONTANA  
**GRANT TITLE:** Loon Ecology Project  
**GRANT AGREEMENT:** T-10-1  
**PERIOD COVERED:** May 29, 2003 through June 30, 2004

### **Location**

Work on this project occurred throughout northwest Montana from the Blackfoot to the Kootenai drainages.

### **Objectives**

The objectives of this project are to determine habitat and population characteristics for common loons in northwest Montana. This information will be used to develop of a comprehensive common loon conservation plan.

### **Accomplishments**

1. Initiated 2-year contract with Montana State University for support Masters level graduate work on the habitat requirements and population characteristics for Montana's breeding common loons. Tasks accomplished during 2003 and first part of 2004 field seasons include:
  - Surveyed approximately 35 lakes for nesting loons; obtained habitat characteristic data for 25 loon nests in 2003 and 38 nests in 2004;
  - Surveyed total of 55 lakes for nesting loons. Monitored chick survival for 38 nests on 25 lakes, 2004.
  - Hired research field assistant through University of Montana for 2004 field season.
  - Captured, collected blood and feather samples, and color-banded 34 birds from 12 different lakes in northwest Montana during 2003 field season.
  - Surveyed nesting and nearby lakes to resight previous color marked loons.
  - Completed final research proposal to determine habitat and population objectives as part of Master's degree project with FWP, MSU and Montana Loon Society (winter 2003-2004).
  - Gathered data from FWP regarding physical habitat characteristics and fish species and abundance.
2. Initiated a contract with the BioDiversity Research Institute (BRI) to receive professional training in capture, handling, and banding methods for common loons.
  - BRI staff spent 7 nights training primary members as well as numerous volunteer helpers in the proper techniques of capturing, handling, collecting samples, and banding of common loons.
3. Completed methylmercury analysis of common loon samples.
  - BRI completed methylmercury analysis of all Montana's samples from 1996-2003 and published results in a technical report: Summary of Capture & Banding Efforts, and methylmercury Exposure to Montana's Breeding Common Loon Population, 1996-7, 2003 BRI 2004-08 (attached).

- Modified BRI contract for 2004 to include further support of fieldwork and chemical analysis of 2004 common loon tissue samples.
4. Initiated banding/marketing of common loons to begin monitoring annual survival rates for various sex/age classes.
- Captured and banded 34 (14 adults and 20 juveniles) common loons in summer 2003.
  - Monitored lakes for banded adults during summer 2003.
  - Captured and banded 35 (8 adults and 27 juveniles) during summer 2004.
  - Monitored each nesting pair before and after hatch at least every 4 days until chicks reached 4 weeks and 2x/week until 44 days after hatching.
  - Obtained one band recovery of dead Montana breeding female loon from Pigeon Point, California.

### **Variances**

Did not fund analysis for contaminants using existing budget; BRI may be successful in obtaining other funding sources to cover pesticide analysis or we may request use of unused funds at end of project.

Did not need to hire graduate assistant in 2003 and used funds to expand contract with BRI for fieldwork and methlymercury analysis of tissue samples collected in 2004.

Completed separate contract with University of Montana to hire graduate assistant for 2004; best qualified and experience assistant was student at UM and not MSU.

### **Discussion**

FWP has internally approved a second phase of this Loon Ecology project (to be addressed in a future grant amendment) that continues work on population parameters through subsequent Master's Degree student in FY 2006-2008. Juvenile recruitment occurs after 3 years, and so there is a need for continued monitoring in order to obtain juvenile survival rates. All population objectives would be completed at end of Phase 2.

### **Expenditure Recap To Date:**

<b>Fiscal Year</b>	<b>Category</b>	<b>Amt. \$</b>
	<b>TOTAL BUDGET</b>	<b>\$57,520.00</b>
	<b>EXPENSES BY FY</b>	
2003	Supplies and Materials	\$260.00
2004	Supplies and Materials	\$3,654.41
2004	Contracted Services	\$17,582.35
2004	Travel	\$4,960.00
2004	Shipping/Communication	\$217.54
	<b><u>TOTAL EXPENDITURES</u></b>	<b><u>\$26,674.30</u></b>
	<b>BALANCE</b>	<b>\$30,845.70</b>

**Estimated Non-Federal Share Realized To Date:**

<b>Fiscal Year</b>	<b>Type of Match</b>	<b>Value (\$)</b>
FY 2003	Volunteer Hours and Miles	1,738.00
FY 2003	State Unmatched Funds	1,033.00
FY 2003	State Wildlife Mitigation	723.00
FY 2003	<i>Subtotal</i>	<i>3,083.00</i>
FY 2004	Volunteer Hours and Miles	8,375.00
FY 2004	MSU Waived Overhead	3,375.00
FY2004	BRI Waived Overhead (est)	1,000.00
FY 2004	FWP Contributions	4,000.00
FY 2004	Subtotal	16,750.00
TO DATE	<i>TOTAL</i>	<i>19,833.00</i>

**Project Personnel**

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